

Response Under 37 CFR 1.116  
Expedited Procedure  
Examining Group 2121

In the Claims: The claims are set forth as follows:

18. (Currently Amended): An apparatus ~~for development of fabrics~~ that optimizes the development of woven fabrics, comprising:
- a display device that displays the woven fabrics that are developed in the apparatus,
- a structure input device that inputs one or more woven fabrics,
- at least one measuring device for measuring individual yarn diameters, and
- a control and evaluation device that controls the measuring device and the woven fabrics,
- wherein the structure input device enables inputting and changing ~~freely definable structures~~ the woven fabrics, and
- wherein an actual fabric is computed and ~~represented~~ presented on the basis of the
- individual yarn diameters and the ~~freely definable structures~~ woven fabric,
- whereby a defined structure of the fabric can be changed to adapt and optimize the actual
- fabric to the measured individual yarn diameters.
19. The apparatus according to claim 18, wherein the at least one measuring device comprises an optoelectronic device.
20. The apparatus according to claim 19, wherein the optoelectronic device comprises a measuring device that carries out absolute measurements and operates in an infrared range.
21. The apparatus according to claim 18, wherein the measuring device has an accuracy of at least 1/100 mm.
22. The apparatus according to claim 18, wherein the defined structure of the actual fabric is graphically represented.

Applicant: Zweigle  
US Patent Application No. 09/423,179  
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23. The apparatus according to claim 18, wherein each structure is defined by a two dimensional matrix.
24. The apparatus according to claim 22, wherein the the computed actual fabric is represented on a screen.
25. The apparatus according to claim 24, wherein a representation of the computed actual fabric comprises parallel projection of an object by via a three dimensional graphics library.
26. The apparatus according to claim 18, comprising an output device comprising a color printer or a color copier.
27. The apparatus according to claim 18, wherein the control and evaluation device controls the at least one measuring device.
28. The apparatus according to claim 18, wherein the at least one measuring device comprises a plurality of measuring heads or measuring devices.
29. The apparatus according to claim 18, wherein a fabric density is set.
30. The apparatus according to claim 18, wherein for knitted fabrics, a computation takes place in the control and evaluation device on the basis of measured yarn data.
31. The apparatus according to claim 18, further comprising a statistical evaluation device that statistically evaluates measured yarn data.
32. The apparatus according to claim 18, whereby the structure input device alters or creates flat fabric structures.
33. The apparatus according to claim 18, wherein the structure input device and the control and evaluation device comprise a computer.

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34. A method for development of fabrics that optimizes the development of actual woven fabric on the basis of measured yarn data using an apparatus having a display device,

said method comprising the steps of:

measuring individual yarn diameters,

~~defining a freely definable structure~~ inputting one or more woven fabrics,

computing and representing an actual woven fabric on the basis of the measured yarn diameters and the freely definable ~~structure~~ woven fabrics,

changing the actual ~~structure of the fabric~~ woven fabrics so that the actual ~~fabric is~~ fabrics are adapted and optimized to the measured individual yarn diameters and the one or more inputted woven fabrics.

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